



# MI FluFocus

## Influenza Surveillance and Avian Influenza Update

Bureau of Epidemiology  
Bureau of Laboratories

Michigan Department  
of Community Health



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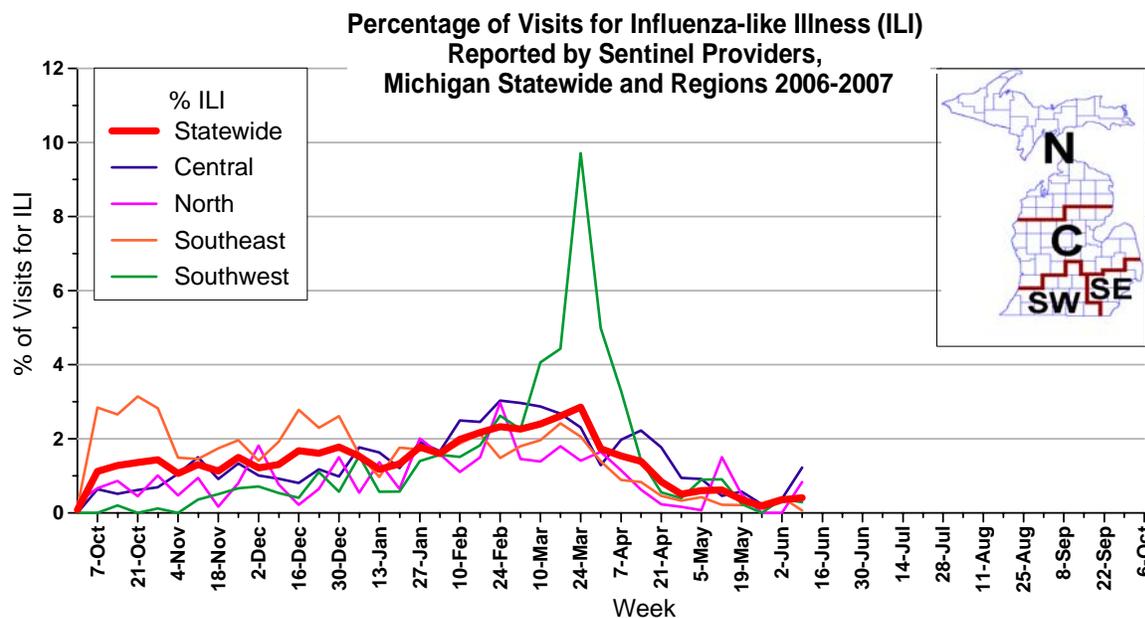
### New updates in this issue:

- **Michigan Surveillance:** An outbreak of mild respiratory disease in an extended care facility is under investigation.
- **Avian Influenza:** Egypt reports additional human cases of H5N1 avian influenza.

**Michigan Disease Surveillance System:** Last week saw both individual influenza and aggregate flu-like illness reports holding steady near the previous week's levels. These indicators are expected to continue to fluctuate at baseline levels until next fall.

**Emergency Department Surveillance:** Emergency department visits due to constitutional and respiratory complaints decreased slightly this past week. Reported levels are consistent with levels from this time last year. Two constitutional alerts in Regions 2S(1) and 6(1) and five respiratory alerts in Regions 1(1), 3(1), 5(2), and 7(1) were generated last week.

**Sentinel Surveillance (as of June 14, 2007):** During the week ending June 9, 2007, the proportion of visits due to influenza-like illness (ILI) in Michigan remained at low a low level; 0.4% of all visits. This represents 10 cases of ILI out of 3558 total patient visits; thirteen sentinels provided data for this report. The proportion of visits due to ILI increased slightly in the Central (1.2%) and North (0.8%) regions, but remained low in the Southeast (0.1%), and Southwest (0.3%) regions. Note that these rates may change as additional reports are received.



As part of pandemic influenza preparedness, CDC and MDCH highly encourage and recommend year-round participation from all sentinel providers. New practices are encouraged to join the sentinel surveillance program today! Contact Rachel Potter at 517-335-9710 or [potterr1@michigan.gov](mailto:potterr1@michigan.gov) for more information.

**Laboratory Surveillance (as of June 14):** For the 2006-2007 influenza season, there have been 157 culture-confirmed cases from the MDCH Lab:

- 69 A:H1N1 (Southeast (22), Southwest (21), Central (16), North (10))
- 34 A:H3N2 (North (12), Southeast (12), Central (7), Southwest (3))
- 54 B (Southeast (18), Central (17), Southwest (12), North (7))

All influenza B cultures have been B/Malaysia, except for six B/Shanghai results from the Southeast region.

\*\*\*As a reminder, the positive predictive value of influenza rapid tests decreases during times of low influenza prevalence. MDCH suggests that during periods of low influenza activity in your community, all positive rapid tests results be confirmed by sending in a specimen for viral culture; this can be arranged through your local health department.

**Influenza-Associated Pediatric Mortality (as of June 14):** For the 2006-2007 season, there are no confirmed reports of influenza-related pediatric mortality in Michigan. MDCH and CDC are currently investigating a possible influenza-associated pediatric mortality in the Southeast region from March.

\*\*\*Reminder: The CDC has asked all states to continue to collect information on any pediatric death associated with influenza infection. This includes not only any death in a child less than 18 years of age resulting from a clinically compatible illness confirmed to be influenza by an appropriate laboratory or rapid diagnostic test, but also unexplained death with evidence of an infectious process in a child. Refer to [http://www.michigan.gov/documents/fluletter\\_107562\\_7.pdf](http://www.michigan.gov/documents/fluletter_107562_7.pdf) for the complete protocol. It is important to immediately call or fax information to MDCH to ensure that appropriate clinical specimens can be obtained.

**Congregate Settings Outbreaks (as of June 14):** An investigation is underway of a mild respiratory disease outbreak in an extended care facility in the Central region. There has been one report of an influenza A outbreak from a Central region extended care facility for the 2006-2007 influenza season.

**National:** For CDC weekly surveillance report archives, visit <http://www.cdc.gov/flu/weekly/fluactivity.htm>.

**International (WHO, as of March 29):** Overall influenza activity in the northern hemisphere remained moderate in weeks 8–11. In North America, influenza activity declined in general, while in Europe and some Asian countries and areas, widespread activity continued, with influenza A(H3N2) viruses predominating. Influenza A(H1N1) viruses circulated in the United States and in a few eastern European countries. Influenza B viruses circulated at low levels.

For influenza activity from individual countries, please visit the full WHO article “Seasonal Influenza Activity in the World, 2007” at <http://www.who.int/csr/disease/influenza/update/en/>.

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Weekly reporting to the CDC has concluded for the 2006-2007 influenza season.

## **End of Seasonal Report**

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### **Avian Influenza Activity**

**WHO Pandemic Phase:** Phase 3 - Human infection(s) with a new subtype, but no human-to-human spread or rare instances of spread to a close contact.

**International, Human (WHO, June 11):** The Egyptian Ministry of Health and Population has confirmed a new human case of avian influenza A (H5N1) virus infection. The case has been confirmed by the Egyptian Central Public Health Laboratory and by the US Naval Medical Research Unit No.3 (NAMRU-3).

The case is a 10 year old female from Qena Governorate. She developed symptoms on June 1, was admitted to hospital on June 6 and died on June 9. Initial investigations into the source of her infection indicate exposure to dead birds.

Of the 35 cases confirmed to date in Egypt, 15 have been fatal.

**International, Human (WHO, June 12):** The Egyptian Ministry of Health and Population has confirmed a new human case of avian influenza A (H5N1) virus infection. The case has been confirmed by the Egyptian Central Public Health Laboratory and by the WHO H5 Reference Laboratory, US Naval Medical Research Unit No.3 (NAMRU-3).

The case is a 4 years old female from Qena Governorate. She developed symptoms on June 7<sup>th</sup> and was admitted to hospital on June 10<sup>th</sup>. She is receiving treatment and is in a stable condition. Initial investigations into the source of her infection indicate exposure to dead birds.

Of the 36 cases confirmed to date in Egypt, 15 have been fatal.

**International, Poultry, H7N2 (BBC News, June 7):** A low-risk strain of bird flu has been found at a smallholding near St Helens in Merseyside. A restriction zone has been placed around the area following the positive tests for the disease.

Some of the infected chickens had been bought from the market held in Chelford associated with the recent outbreak in north Wales. All the farm's birds, including peacocks, have been culled. The strain is not thought to pose a human risk. Low pathogenic avian influenza typically causes little or no clinical symptoms in infected birds.

Fred Landeg, deputy chief veterinary officer said: "The tests were carried out as part of the normal tracings activity, which is underway following the outbreak in Wales. This is an extensive exercise, and this is the only premises to date with evidence of infection."

The birds included 20 chickens, 3 ducks, 3 peacocks and some peacock chicks. A restricted zone extends 1 km from the holding, which is thought to be in Rainhill, near St Helens. People are forbidden from moving poultry or any sort of live birds or eggs through this zone.

The 2 people who live on the smallholding have been tested for the disease after exhibiting flu-like symptoms, but results came back negative. Animal Health is tracing movements and contacts. Defra is working closely with the Health Protection Agency on all potential human health aspects.

**International, Poultry (Reuters, June 11):** Indonesia has found traces of H5N1 bird flu in apparently healthy-looking poultry, making it tougher to detect the disease in the country hardest hit by the virus, officials said on Monday. Sick or dead chickens are used as a sign of H5N1 infection, but the appearance of "asymptomatic" chickens means humans could become more easily infected with bird flu. Indonesia has the world's highest death toll from the disease, killing 79 people.

"The poultry death rate is not so high, but there is a trend that chicken or poultry are infected by the virus but they don't die. So, the H5N1 virus is not fatal to poultry," Musny Suatmodjo, director of animal health at the agriculture ministry, told a news conference.

Bird flu is endemic in poultry in many parts of Indonesia, which has been struggling to contain the disease because millions of backyard chickens live in close proximity to people across the archipelago. Contact with sick fowl is the most common way people become infected. Globally, 189 people have died of H5N1 infection since the virus reappeared in Asia in late 2003.

While bird flu is essentially a poultry disease, scientists are worried about the virus's ability to adapt to new environments and hosts. They fear this increases the chances of the virus mutating into a form that can jump easily between people, triggering a pandemic.

For the first six months of this year, 12,000 birds have died of bird flu or been culled, while last year about 1.75 million poultry either died of the disease or were culled, Suatmodjo said.

Authorities fear healthy-looking poultry could shed the virus in their feces, increasing the risk of spreading bird flu to people. "The poultry deaths have come down. But there's something that we need to be cautious about. There is concern shedding may occur," Bayu Krisnamurthi, the bird flu commission chief, told reporters.

"There are some cases where humans were infected with the virus although there was no sick or dead poultry in their surroundings. But it can't be a general conclusion yet," he said, adding the commission was being cautious about this indication.

Hong Kong-based researchers have also detected such "asymptomatic" chickens and other poultry in mainland Chinese markets in recent years, which they believe were responsible for most of the H5N1 human infections there.

One published study of fecal samples taken from healthy poultry in markets in China in recent years found that one percent were infected with the virus.

The Indonesian Bird Flu Commission said last week the H5N1 bird flu virus in Indonesia might have undergone a mutation that allows it to jump more easily from poultry to humans.

**International, Poultry (Associated Press, June 13):** Myanmar has detected the H5N1 bird flu virus among chickens on a private farm, an official said Wednesday, marking country's first outbreak of the deadly virus since April.

Than Hla, an official at the Livestock Breeding and Veterinary Department, said the virus was detected in a small farm in Bago, 80 kilometers (50 miles) north of Yangon, early this month. "About 28 chickens died at a private poultry farm in the outskirts of Bago starting June 3," said Than Hla, adding that laboratory tests confirmed on June 7 that some of chickens were infected with H5N1.

About 1,000 birds from the farm have been killed as a precaution, he said. He did not specify the number of birds that tested positive for the disease. The livestock department has also kept a close watch on the area, he said, adding that the outbreak remained under control because the farm was located away from other poultry farms and residential areas.

Myanmar had reported outbreaks of H5N1 bird flu in the outskirts of country's largest commercial city Yangon in February and April and had slaughtered more than 60,000 chickens and other birds. Before those cases, Myanmar last reported an H5N1 outbreak among poultry in March 2006. It has reported no human H5N1 cases.

The U.N. Food and Agriculture Organization has said Myanmar has achieved substantial progress in the fight against bird flu though the country still needs more international support to fight the disease in the long run. The disease has killed at least 190 people worldwide since it began ravaging Asian poultry farms in late 2003, according to the World Health Organization.

**National Wild Bird Surveillance (USDA, June 8):** Four ruddy turnstone ducks from Sussex and Kent counties in Delaware have tested negative on confirmatory testing for low-pathogenic "North American" strain of H5N1 avian influenza according to the National HPAI Early Detection Data System website (<http://wildlifedisease.nbio.gov/ai/>).

**Michigan Wild Bird Surveillance (USDA, June 14):** For the 2007 testing season, 116 Michigan samples have been taken so far (108 from USDA-WS and 8 from DNR).

According to the National HPAI Early Detection Data System website, HPAI subtype H5N1 has not been recovered from any Michigan samples tested to date, or from the 1214 birds or environmental samples tested nationwide. The 2007 testing season will run from April 1, 2007-March 31, 2008. For more information, visit the National HPAI Early Detection Data System website at <http://wildlifedisease.nbio.gov/ai/>.

To learn about avian influenza surveillance in Michigan wild birds or to report dead waterfowl, go to Michigan's Emerging Disease website at <http://www.michigan.gov/emergingdiseases>.

**Please contact Susan Vagasky at [VagaskyS@Michigan.gov](mailto:VagaskyS@Michigan.gov) with any questions regarding this newsletter or to be added to the weekly electronic mailing list.**

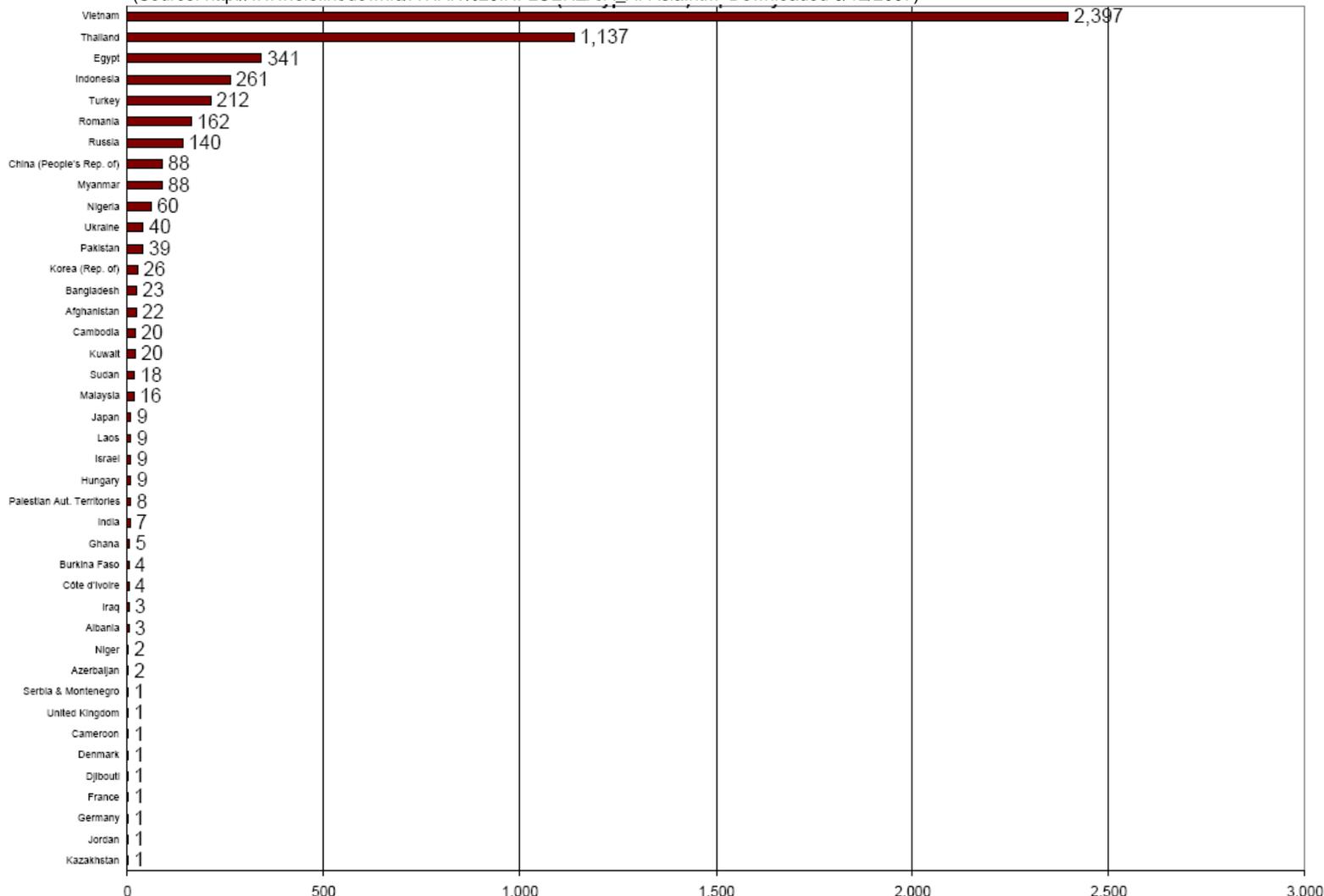
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**Table 1. H5N1 Influenza in Poultry (Outbreaks up to June 12, 2007)**

(Source: [http://www.oie.int/download/AVIAN%20INFLUENZA/A\\_AI-Asia.htm](http://www.oie.int/download/AVIAN%20INFLUENZA/A_AI-Asia.htm) Downloaded 6/12/2007)



**Table 2. H5N1 Influenza in Humans (Cases up to June 12, 2007)**

([http://www.who.int/entity/csr/disease/avian\\_influenza/country/cases\\_table\\_2007\\_06\\_12/en/index.html](http://www.who.int/entity/csr/disease/avian_influenza/country/cases_table_2007_06_12/en/index.html) Downloaded 6/12/2007)

Cumulative number of lab-confirmed human cases reported to WHO. Total number of cases includes deaths.

Country	2003		2004		2005		2006		2007		Total	
	cases	deaths										
Azerbaijan	0	0	0	0	0	0	8	5	0	0	8	5
Cambodia	0	0	0	0	4	4	2	2	1	1	7	7
China	1	1	0	0	8	5	13	8	3	2	25	16
Djibouti	0	0	0	0	0	0	1	0	0	0	1	0
Egypt	0	0	0	0	0	0	18	10	18	5	36	15
Indonesia	0	0	0	0	20	13	55	45	24	21	99	79
Iraq	0	0	0	0	0	0	3	2	0	0	3	2
Lao People's Democratic Republic	0	0	0	0	0	0	0	0	2	2	2	2
Nigeria	0	0	0	0	0	0	0	0	1	1	1	1
Thailand	0	0	17	12	5	2	3	3	0	0	25	17
Turkey	0	0	0	0	0	0	12	4	0	0	12	4
Viet Nam	3	3	29	20	61	19	0	0	0	0	93	42
Total	4	4	46	32	98	43	115	79	49	32	312	190